

WHAT IS CLAIMED IS:

Encryption:

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- 1 1. A method, comprising:
 - 2 obtaining a hint;
 - 3 obtaining a password;
 - 4 performing a hashing algorithm on the hint and the password to generate a
 - 5 key;
 - 6 encrypting data using the key; and
 - 7 sending the encrypted data to a server for storage.
 - 1 2. The method of claim 1, wherein the step of performing a hashing algorithm
 - 2 includes hashing the password.
 - 1 3. The method of claim 1,
 - 2 wherein the step of performing a hashing algorithm includes hashing the
 - 3 password to derive a first secret, hashing the first secret to derive a second secret,
 - 4 hashing the hint and the first secret to generate an intermediate index, and hashing
 - 5 the intermediate index and the second secret to generate the key.

1 4. A system, comprising:
2 a user interface for obtaining a password;
3 a key generator coupled to the user interface for performing a hashing
4 algorithm on a hint and the password to generate a key;
5 an encryption engine coupled to the key generator for encrypting data using
6 the key; and
7 a communications module coupled to the engine for sending the encrypted
8 data to a server for storage.

1 5. The system of claim 4, further comprising a hint generator for generating
2 the hint.

1 6. The system of claim 4, wherein the key generator hashes the password.

1 7. The system of claim 4, wherein the key generator hashes the password to
2 derive a first secret, hashes the first secret to derive a second secret, hashes the hint
3 and the first secret to generate an intermediate index, and hashes the intermediate
4 index and the second secret to generate the key.

1 8. A system, comprising:
2 means for obtaining a hint;
3 means for obtaining a password;
4 means for performing a hashing algorithm on the hint and the password to
5 generate a key;
6 means for encrypting data using the key; and
7 means for sending the encrypted data to a server for storage.

1 Client-side decryption

2 13. A method, comprising:

3 obtaining a password;

4 receiving encrypted data and a hint corresponding to the encrypted data
5 from a server; and

6 performing a hashing algorithm on the password and the hint to generate a
7 key for decrypting the encrypted data.

1 14. The method of claim 13, wherein the step of performing a hashing

2 algorithm includes hashing the password.

1 15. A system, comprising:

2 a user interface for obtaining a password;

3 a communications module for receiving the encrypted data and a hint
4 corresponding to the encrypted data from a server;

5 a key generator for performing a hashing algorithm on the password and the
6 hint to generate a key for decrypting the encrypted data.

1 16. A system, comprising:

2 means for obtaining a password;

3 means for receiving encrypted data and a hint corresponding to the
4 encrypted data from a server; and

5 means for performing a hashing algorithm on the password and the hint to
6 generate a key for decrypting the encrypted data.

1 17. The system of claim 16, wherein the system includes code stored on a

2 computer-readable storage medium.

1 18. The system of claim 16, wherein the system includes code embodied in a
2 carrier wave.

1 19. A method, comprising:
2 receiving identification of encrypted data;
3 sending a decryption downloadable for deriving a key from a password and
4 a hint to a client; and
5 sending a hint corresponding to the encrypted data to the client.

1 20. A system, comprising:
2 a decryption downloadable for deriving a key from a password and a hint;
3 encrypted data;
4 a hint corresponding to the encrypted data; and
5 a web server for interfacing with a client, and for sending the decryption
6 downloadable, the encrypted data and the hint to the client.

1 Server-side decryption

2 21. A client-based method, comprising:
3 obtaining a password;
4 deriving a first secret from the password;
5 receiving a hint corresponding to data to be decrypted from a server;
6 deriving an intermediate index from the first secret and the hint; and
7 sending the intermediate index to the server.

1 22. The method of claim 21, wherein deriving the first secret includes hashing
2 the password.

29. A server-based method, comprising:

- receiving an indication of encrypted data to be decrypted;
- transmitting to a client a hint corresponding to the indication, and a decryption downloadable for deriving an intermediate index from a password and the hint;
- receiving the intermediate index from the client; and
- deriving a decryption key from a second secret corresponding to the user and the intermediate index.

30. A system, comprising:

- a second secret corresponding to a user;
- a decryption downloadable for generating an intermediate index from a password and a hint;
- a web server for receiving an indication of encrypted data to be decrypted, for transmitting the decryption downloadable and a hint corresponding to the indication to a client, and for receiving an intermediate index from the client; and
- a server-resident module for deriving a key for decrypting the encrypted data from the second secret and the intermediate index.